



Doing the Math: Checking the Soccer Stadium Economic Impact Analysis

What is an economic impact analysis?

Economic impact analyses are studies that assess how a certain project or event will affect an area in terms of wages, jobs, tax revenue and other economic and fiscal impacts. In this case, the 'project' in question is Precourt Sports Ventures (PSV)'s proposal to build a soccer stadium on city-owned property in Austin in order to relocate the Columbus Crew, a Major League Soccer team. The city-owned property is located on McKalla Place, near the intersection of Burnet Road and Braker Lane.

Who performed the economic impact analysis on this proposal?

In March 2018, the Austin City Council directed city staff to analyze the benefits, costs, opportunity costs, and other potential impacts of developing the McKalla Place site as a soccer stadium. 'Opportunity costs' are the opportunities that one misses out on by choosing one option over another.

City staff submitted a memorandum in June 2018 in which they provided information on the site, certain infrastructure costs, and a high-level discussion of opportunity costs. They also included an economic impact analysis performed by B&D Venues, which describes itself as "a specialized practice group... that focuses exclusively on the planning and development of sports facilities."

What exactly do economic impact analyses measure?

Economic impact analyses attempt to assess a project's effect on an area by measuring how new spending ripples through an area's broader economy.

Anytime an individual or a company pays a business for a good or service, the business is likely to use that money in several different ways, such as paying local employees, purchasing goods or services from other local businesses, paying local taxes, or by paying non-local employees, non-local businesses, or non-local taxes. The entities that the business pays, in turn, spend this money similarly, on both local and non-local employees, businesses, and taxes – and so on. Payments to non-local entities leave the area, but payments to local entities stay in the area and help support the area's economy. In this way, spending helps support an area's economy and continues to ripple through the system even after the initial payment is over. Analysts estimate these indirect 'ripple' effects by using a measure known as a 'multiplier.'

How do economic impact analyses measure spending's effect on an economy?

Ideally, economic impact analyses should focus on the impact *new* spending has on an area and exclude spending that would have occurred in the area regardless. For instance, consider a

resident of a city who regularly attends plays every weekend. The money he spends on plays ripples through the economy. Now imagine that a developer builds a new movie theater nearby and this resident decides to go to the movie theater instead. He is not adding any new money into his local economy – only shifting the money he would have otherwise spent on plays (a dynamic known as ‘substitution’). Counting this resident’s spending in an economic impact analysis would make the project appear to have a larger impact than it actually would.

New spending would occur if, for instance, the movie theater becomes nationally known and people travel to the area specifically so that they can visit it. In this case, new spending would include not only the money these visitors spend at the theater, but also at things like the restaurants and hotels they visit because they were in town to see the theater. However, economic impact analyses should try to exclude visitors who were already planning to travel to the area regardless, since they otherwise would have spent their money elsewhere in the area.

Finally, not all spending in an area actually stays in that area. Imagine that the movie theater sells candy made by a non-local company. The theater uses part of the money they charge patrons to continue to purchase more candy for their patrons to buy. This money goes to the non-local candy company, rather than staying in the local area – and thus has no ripple effects on the local economy. This spending, known as ‘leakage,’ should be excluded from an economic impact analysis.

What do economists have to say about the costs and benefits of publicly subsidized sports stadiums and about economic impact analyses?

There is a broad consensus among economists that public subsidies for sports stadiums generally cost more than the limited economic benefits they generate. This is mainly because sports games serve as substitutes for other types of entertainment spending that would have occurred regardless.

This is not to say that sports stadiums do not have value to a community in other ways – only that the economic impact is generally limited and that the rationale for asking taxpayers to help pay for a stadium based on economic impact can be questionable.

In 2005, for instance, 210 randomly selected Ph.D. economists from the American Economic Association were surveyed on a variety of policy questions. Eighty-five percent of those surveyed indicated that they favor eliminating professional sports franchise subsidies.¹

More recently, the Initiative on Global Markets (IGM) research center at the University of Chicago Booth School of Business, polled its 42-person Economics Experts Panel and found that 57 percent agreed that providing subsidies to build professional sports stadiums “is likely to cost the relevant taxpayers more than any local economic benefits that are generated,” while only 2 percent disagreed (and the rest registered uncertainty, no opinion, or did not answer). After

¹ Whaples, Robert. “Do Economists Agree on Anything? Yes!” The Economists’ Voice: Vol. 3, Issue 9 (2006).

weighting these by each expert's self-reported level of confidence in their response, the number of economists who agreed rose to 83 percent, versus 4 percent who disagreed.²

Public subsidies can include direct public spending on stadium-related expenses (such as funding site preparation, stadium construction, infrastructure costs, event services, etc.) as well as forgone revenue that the city would otherwise have collected (property tax breaks, fee waivers, below-market sales or leases, etc.).

If economists believe that stadiums have limited economic impact, why do some analyses report large impacts?

A number of economists have written about the difficulties of economic impact analyses, many of which have to do with debatable assumptions, omission of substitution, and other decisions. Some economic impact analyses also omit financial costs and opportunity costs, which may make the benefits appear larger than they might actually be. As a result, it is important for decisionmakers to examine economic impact analyses and the assumptions they use.

Prior to the B&D Venues study, Stanford University Professor Roger Noll wrote to Austin City Council Member Alison Alter and identified key information the city should consider when evaluating PSV's proposal, including the opportunity costs, financial costs to the city, and substitution, among others. Many of these were not addressed or only partially addressed in B&D Venues' economic impact analysis.

Additionally, in a 1995 Journal of Sport Management article, Texas A&M University Professor John Crompton noted that many economic impact analyses overstate their results and identified 11 key sources of this inaccuracy. He dubbed these the 'Eleven Sources of Misapplication.'

What are the 'Eleven Sources of Misapplication?'

The 'Eleven Sources of Misapplication' are a list of common items that contribute to economic impact analyses inaccurately reporting the estimated impact of sports facilities. Texas A&M University Professor John Crompton identified these 11 items in a 1995 article published in the Journal of Sport Management.

These items cover a range of common inaccuracies, including making certain modeling decisions that tend to overstate economic impact estimates and omitting important information on a proposal's costs. The full list is available in the attached documents.

Are any of the 'Sources of Misapplication' present in B&D Venues' economic impact analysis?

Yes. Our office attempted to analyze the B&D Venues study against Professor Crompton's 'Eleven Sources of Misapplication' and we believe that we have identified a number of instances in which they made decisions and assumptions that deserve further review and discussion.

² IGM Forum. "Sports Stadiums" (31 January 2017).

The following are some examples of areas of concern:

- **Omission of Costs.** Under the PSV proposal, the city would be required to cover a number of costs and exempt PSV from a number of taxes and fees that the city normally requires of other developers. Understanding how these costs compare to projected benefits is an important part of determining whether PSV's proposal is a good deal or not. City staff have estimated some of these costs, though a number are still outstanding. B&D Venues did not provide estimates of costs in their analysis.
- **Omission of Opportunity Costs.** The 'opportunity costs' are the opportunities that the city would miss out on by choosing to accept PSV's proposal over another proposal. Understanding the economic impact of competing proposals is an important part of determining whether PSV's proposal has larger or smaller economic benefits than alternative plans – and whether it is ultimately the best option. City staff provided a high-level discussion of opportunity costs. B&D Venues did not provide an analysis of opportunity costs.
- **Not Fully Accounting for Substitution.** As discussed earlier, economic impact analyses ideally exclude from consideration money that an individual spends at a stadium but would otherwise spend somewhere else locally if the stadium did not exist. This is because in these cases the stadium's existence would only shift money around, not support new economic impacts (an effect known as 'substitution'). B&D Venues does adjust for substitution in certain places, but not in others.

For instance, B&D Venues justifiably *excludes* the money city residents would spend at a stadium from its calculations, since they would likely spend that money elsewhere in the city if the stadium did not exist. However, it appears to *include* all spending from residents of the Austin-Round Rock Metropolitan Statistical area outside of the city and Travis County. This would *not* account for substitution among local residents in Williamson, Hays, Caldwell, and Bastrop Counties, and as a result would overstate the impact.

Additionally, B&D Venues estimate that the stadium construction itself will result in significant economic benefit. However, because Austin has a booming real estate market where developers report increasing costs and delays due to the high demand for materials and workers, construction impacts will likely be limited and serve as a substitute for other projects. Including these estimates likely overstates the project's impact.

- **Questions Regarding Assumptions.** There are a number of assumptions built into B&D Venues' economic modeling that may require a closer look. For instance, B&D Venues assumes that 10 percent of stadium patrons, or roughly 1,291 people per event, would be out-of-towners who are staying overnight in Austin. However, some sources would seem to indicate that lower estimates may be more appropriate. For instance, a Guardian article from 2016 notes out-of-town attendance at some Major League Soccer games as

ranging from under 100 visitors to around 750.³ If this estimate of visitors who will stay overnight is high, it will overstate the economic impact.

B&D Venues also uses a number of other assumptions that they did not discuss, such as estimates for leakage from patron spending. These assumptions may be standard or reasonable but deserve further explanation to ensure the analysis is accurate.

- **Unclear Modeling.** There are some instances in which parts of B&D Venues' analysis appears unclear or inconsistent. In the section analyzing construction impacts, it appears that output may have been miscalculated, leading to the 'total output' accidentally listing only the indirect output. In that same section, B&D Venues appear to have used multipliers for wages and earnings that are not in the list of multipliers they provide earlier in the analysis. These items deserve further explanation and review in order to ensure the analysis is accurate. It is possible that B&D Venues may have a reasonable explanation for these perceived errors and we anticipate receiving more information on these from city staff or B&D Venues.

These concerns are discussed in more depth in the attached documents.

What exactly is PSV proposing?

In general, PSV is proposing to use a combination of private funding and federal tax subsidies to build and operate a soccer stadium on publicly owned land. PSV would control the publicly owned stadium and receive all stadium revenues while also being exempt from property taxes and requiring the city to cover site preparation, infrastructure, and a number of other costs. The proposal terms are discussed below in greater detail.

PSV has asked the city to pay for the following items the city would normally require developers to cover:

- Site remediation and preparation;
- Off-site infrastructure (such as water, wastewater, roads, and sidewalks);
- Event services (such as police, traffic control, fire prevention, emergency medical services, and street trash removal); and
- Insurance policies, warranties, and other similar policies.

PSV has also asked that the city forgo revenues it would normally require developers pay when they buy or lease city-owned land. These include:

- Leasing the property to PSV for \$1 per year, rather than selling or leasing the property at market rate;
- Establishing the deal in a way that exempts PSV from all property taxes;
- Waiving all city fees related to construction; and
- Allowing PSV complete control over parking revenues.

³ Callaghan, Joe. "In MLS, away from home is really different, really difficult," The Guardian (17 April 2016).

In return, PSV has indicated they would commit to building, operating, and maintaining the stadium. They have indicated that they plan to pursue New Market Tax Credits – federal tax subsidies meant to incentivize economic development – to help finance the stadium construction.

PSV has also proposed that the city retain ownership of the property and the stadium, though PSV would have control over and receive all revenues related to the stadium, such as naming rights, sponsorships, merchandising, concessions, parking revenues, and more.

Finally, PSV has indicated they would commit to making tax-deductible donations annually to a number of non-profits as well as allowing a limited number of organizations to use the stadium for free. PSV would also allow the city to use the city's own property rent-free once per year.

Does the city currently have cost estimates on the PSV proposal?

City staff have estimated some of these costs, such as infrastructure, though a number of estimates are still outstanding. B&D Venues did not provide estimates of costs or opportunity costs in their analysis.

What do Austin residents think of the proposal to build a soccer stadium in Austin?

Several polls indicate that most Austin residents support bringing a Major League Soccer team to Austin (ranging from 55 percent to 74 percent, depending on the poll) and believe that a Major League Soccer franchise could succeed in Austin (64 percent).

However, polling also reveals more skepticism among residents toward some of the details of PSV's proposal. For instance, a majority of residents believe that (among other things):⁴

- If the city sells or leases property to PSV for a stadium, it should do so for market value (83 percent);
- The team owners should pay property taxes on the site (87 percent); and
- The team owners should pay for local infrastructure costs, such as roads and a train station (83 percent).

⁴ Strategic Research Associates, LLC. "MLS to Austin" Poll (24 May 2018).

Table 1. Comparing B&D Venues' Analysis to the "Eleven Sources of Misapplication"

Source of Misapplication	Implication	Present in B&D Study	B&D Study Content
1. Using sales instead of household income multipliers.	Sales multipliers yield larger figures, though income multipliers may provide more relevant information for residents and policymakers.	Partially	B&D Venues includes figures measuring impact on income but also highlights the figures on output, which uses a multiplier similar to the sales multiplier Crompton criticizes.
2. Misrepresentation of employment multipliers.	Employment multipliers tend to overstate the impact on employment levels and need to be explained in order to account for this bias.	More Information Needed	B&D Venues uses employment multipliers. However, they do not explain these multipliers, how they derived them, or whether they have attempted to correct for this bias.
3. Using incremental instead of normal multiplier coefficients.	Incremental multipliers are larger than proportional multipliers, though using proportional multipliers may provide more relevant information for policymakers.	Yes	B&D Venues appears to have used an incremental multiplier, at least for output. It is unclear what multipliers B&D Venues used for earnings and employment or how they derived these.
4. Failure to define the area of interest accurately.	Analyzing a larger area than is otherwise justified can overstate economic impact.	No	B&D Venues analyzes the impact on both the City of Austin and Travis County, both of which seem to be reasonable jurisdictions to analyze.
5. Inclusion of local spectators.	Spending by locals simply substitutes for other local spending that would have occurred elsewhere and should be excluded from the economic analysis.	Yes	B&D Venues only excludes Austin and Travis County spending, while still including Williamson, Hays, Bastrop and Caldwell Counties as 'out-of-market' patrons. Also, the portion of overnight patrons estimated appears high.
6. Failure to exclude 'time-switchers' and 'casuals.'	Spending by 'time-switchers' and 'casuals' is simply a substitute for other local spending. Including them in the analysis can overstate the economic impact.	Yes	B&D Venues does not appear to have accounted for 'time-switchers' and 'casuals.' They include all projected out-of-market and overnight patrons in their estimates, which includes 'time-switchers' and 'casuals.'
7. Use of 'fudged' multiplier coefficients.	Using multipliers that are arbitrary or borrowed from other areas can misrepresent the economic impact.	No / Unclear	B&D Venues used Austin and Travis County multipliers from the RIMS II, a BEA model. However, certain multipliers appear to deviate from the RIMS II list without explanation.
8. Claiming total instead of marginal economic benefits.	Attributing the entire economic impact to public spending when it is only responsible for a portion of the impact can overstate its role and make it appear more favorable.	No	B&D Venues does provide an analysis of total economic impact, but it does not attribute it to a specific government investment.
9. Confusing turnover and multiplier.	Misunderstanding of how the multiplier works can lead to misunderstandings of the impact.	No	B&D Venues appears to accurately describe multipliers.
10. Omission of opportunity costs.	Insufficient or absent information on opportunity costs can lead to an inaccurate perception of net benefits.	Yes	B&D Venues did not analyze the opportunity costs; the staff memo provides only limited information.
11. Measurement only of benefits: omitting costs.	Omitting cost information while focusing mainly on positive impacts can create an impression that there are limited downsides.	Yes	B&D Venues did not analyze the cost to the city over the lifetime of the stadium; the staff memo provides valuable information but is missing certain estimates.

Applying “Eleven Sources of Misapplication” to the McKalla Place Analysis

Overview

Texas A&M University Professor John Crompton identified a list of common items that contribute to inaccurate economic impact analyses in his 1995 article, “Economic Impact Analysis of Sports Facilities and Events: Eleven Sources of Misapplication.” This document summarizes Crompton’s ‘eleven sources’ and attempts to apply them to B&D Venues’ analysis of the economic impact of an Austin soccer stadium.

Review

1. Using sales instead of household income multipliers.

Rationale: Anytime an individual pays a business for a good or service, the business is likely to use that money in several different ways, such as paying local employees, purchasing goods or services from other local businesses, paying local taxes, or by paying non-local employees, non-local businesses, or non-local taxes. These entities then, in turn, spend this money in similar ways, on both local and non-local employees, businesses, and taxes.

A “sales multiplier” measures the impacts that additional spending has on broader economic activity in the area (ie. the several different ways the business in the scenario above uses its money) whereas an “income multiplier” measures the impacts that additional spending has on income levels in the area.

Crompton argues that the income multiplier is the more relevant measure for residents and policymakers; he also argues that using the sales multiplier can be misleading because readers may expect that the discussion of economic activity refers to the impact it has on income in the area, when in fact the income multiplier is the proper measure for that discussion.

Implication: Sales multipliers are generally substantially larger than income multipliers.

B&D Report: B&D Venues includes figures measuring impact on income but also highlights the figures on output. The output multiplier is similar to the sales multiplier that Crompton criticizes. Additionally, media coverage appears to have focused on the output figures over the income figures.

2. Misrepresentation of employment multipliers.

Rationale: An “employment multiplier” measures the impacts that additional spending has on employment in the area. However, an employment multiplier also tends to be a less reliable measure than other multipliers because it assumes that any additional spending will cause employers to hire more workers instead of asking their existing employees to work overtime or taking other steps to meet demand short of hiring new employees. Additionally, the intermittent nature of sports events makes it likely that many new hires may be for a temporary, game-day basis rather than on a stable, permanent basis.

Crompton argues that, because of these dynamics, employment multipliers can be misleading if not properly explained.

Implication: Employment multipliers tend to overstate the impact on employment levels.

B&D Report: B&D Venues uses employment multipliers. However, they do not explain these multipliers, how they derived them, or whether they have attempted to correct for the potential bias described above.

3. Using incremental instead of proportional multipliers.

Rationale: As noted earlier, anytime an individual pays a business for a good or service, the business is likely to use that money in several different ways, such as paying local employees, purchasing goods or services from other local businesses, paying local taxes, or by paying non-local employees, non-local businesses, or non-local taxes.

A multiplier measures the impacts that additional spending has on economic activity in a specific area. Crompton identifies two different methods for measuring these impacts, depending on which part of the initial individual’s payment you are examining. For the purposes of the example below, we will use an income multiplier, though the same principle can be applied to other multipliers, as well.

The first method (known as the ‘incremental’ approach) considers only the *portion* of the individual’s initial payment that ultimately goes to paying local employees and measures the impact that portion of the payment has on the total income level changes that result in the area. The second method (known as the ‘proportional’ approach) measures the impact that the *entire* initial payment has on the total income level changes that result in the area.

Crompton argues that the proportional approach provides better guidance for policymakers because it measures impact based on the actual amount of money spent and because it takes into consideration the portions of the payment that do not impact income levels.

Implication: Incremental multipliers are larger than proportional multipliers.

B&D Report: B&D Venues appears to have used an incremental multiplier, at least for output. It is unclear what multipliers B&D Venues used for earnings and employment or how they derived these.

4. Failure to accurately define the impacted area.

Rationale: A multiplier's impact is often connected to the size of the area. Larger areas often have multiple interconnected industries and businesses, which means that money spent at one business in the area is more likely to continue to circulate in that area.

For example, consider a local bicycle shop that purchases tires from another local business but handlebars from a non-local business. When individuals purchase bikes here, part of that money stays in the local economy (the portions that go to paying local employees at the bike shop and purchasing more tires from the local tire business, which in turn pays its local employees). However, part of the bike purchase also leaves the local area (the portion that goes to buying handlebars from the non-local business), a concept known as 'leakage.'

Larger areas tend to have more opportunities for intra-area trade and thus have lower leakage. Because of this, larger areas tend to have higher multipliers.

Crompton argues that determining whether the geographic boundaries of the analysis are reasonable is important because altering the boundaries can change the size of the multiplier.

Implication: Analyzing a larger area than is otherwise justified can overstate economic impact.

B&D Report: B&D Venues analyzes the impact on both the City of Austin and Travis County, both of which seem to be reasonable jurisdictions to analyze.

5. Including local spectators.

Rationale: Economic impact analyses should almost exclusively consider the impact related to *new* spending by non-locals, such as visitors, non-local businesses, and non-local governments and should generally not include local spending. Spending by locals does not represent new economic activity for the area – rather, it tends to shift spending from one local activity to another. This is known as ‘substitution.’

Crompton argues that economic impact analyses should focus on the net economic impact and exclude local spending that simply substitutes for other local spending.

Implication: Including local spending can overstate economic impact.

B&D Report: B&D Venues appears to include local spending in their estimate. Their analysis appears only to exclude local patrons from Austin and Travis County while still including local patrons from the broader Austin-Round Rock Metropolitan Statistical Area (MSA) of Williamson, Hays, Bastrop and Caldwell Counties (which they term ‘out-of-market’ patrons). The Census Bureau reports that it includes a county in an MSA based on whether it has “a high degree of social and economic integration with the core as measured through commuting ties.” Given that a portion of MSA residents regularly spend money in Austin and Travis County, it seems reasonable to assume that at least a portion of spending by these other Austin-Round Rock MSA residents would not be new spending, but would instead displace some existing local spending patterns.

Additionally, the portion of overnight patrons estimated appears high. B&D Venues assumes that 10 percent of stadium patrons, or roughly 1,291 people per event, would be out-of-market visitors who are staying overnight in Austin. However, some sources would seem to indicate that lower estimates may be more appropriate. For instance, a Guardian article from 2016 notes out-of-town attendance at some Major League Soccer games as ranging from under 100 visitors to around 750.⁵ Any overestimation in overnight stays would shift patrons from the ‘local’ category to the ‘non-local’ category and, as a result, potentially overstate the economic impact.

6. Failing to exclude ‘time-switchers’ and ‘casuals.’

Rationale: Economic impact analyses should account for non-local spending at a sports stadium that cannot be fully attributed to the stadium. Some visitors may have

⁵ Callaghan, Joe. “In MLS, away from home is really different, really difficult,” The Guardian (17 April 2016).

already planned a visit to an area but changed the timing to align with a game ('time-switchers'); other visitors may already have already been visiting the area and decided to fill part of their time by attending a game ('casuals'). In both cases, the visitors would have spent money in the area regardless of whether a stadium existed. To the extent that a non-local individual visits an area or extends her stay because of an event at the stadium, that impact is attributable to the stadium and should be included in an economic analysis.

Crompton argues that economic impact analyses should focus on the net economic impact and exclude local spending by non-local time-switchers and casuals because this spending simply substitutes for other local spending in which these individuals would have engaged regardless of a stadium.

Implication: Including 'time-switchers' and 'casuals' can overstate economic impact.

B&D Report: B&D Venues does not appear to have accounted for 'time-switchers' and 'casuals.' They include all projected out-of-market and overnight patrons in their estimates, which may include 'time-switchers' and 'casuals.'

7. Using 'fudged' multiplier coefficients.

Rationale: Different areas have very different economies with different businesses and different levels of leakage. Because of this, it is unreasonable to assume that one area's multipliers can be used to estimate impacts on another.

Crompton argues that economic impact analyses should use multipliers that are specific to the area in question. If this is not feasible, he argues that the analysis should be careful to make realistic assumptions based on the information available.

Implication: Using multipliers that are arbitrary or borrowed from other areas can misrepresent the economic impact.

B&D Report: B&D Venues indicates that they used Austin and Travis County multipliers from the Regional Input-Output Modeling System (RIMS II), the Bureau of Economic Analysis' off-the-shelf economic model. B&D Venues lists these multipliers in a table in their analysis. However, while B&D appears to have used the RIMS II output multipliers from their table, the calculations for wages and jobs appear to use multipliers that may differ from those found in the table. It is possible that B&D Venues may have a reasonable explanation for these perceived errors and we anticipate receiving more information on these from city staff or B&D Venues.

8. Claiming total instead of marginal economic benefits.

Rationale: Economic impact analyses should be realistic about the economic impact attributed to subsidization and should only credit public spending in proportion to its actual role. For instance, if a public entity only subsidizes a quarter of a project, the analysis should not credit that spending with the entire economic impact.

Crompton argues that economic impact analyses should credit public spending in proportion to its role, but also recognizes the argument that in some cases private investment is only triggered in the event of public participation.

Implication: Attributing the entire economic impact to public spending when in reality it is only responsible for a portion of the impact can overstate the role of public spending and make it appear more favorable.

B&D Report: B&D Venues does provide an analysis of total economic impact, but it does not attribute it to a specific government investment.

9. Confusing turnover and multiplier.

Rationale: The multiplier measures the impact that additional spending has on an area, both directly (through the impact attributed to the initial spending) and indirectly (as the money continues to circulate in the local economy and as increased income induces employees to spend more). However, a misunderstanding of this process (such as confusing the number of times a given dollars changes hands with the multiplier) can lead individuals to make inaccurate assertions regarding economic impact.

Implication: Misunderstandings of how the multiplier works can lead to misunderstandings regarding economic impact.

B&D Report: B&D Venues appears to accurately describe multipliers.

10. Omitting opportunity costs.

Rationale: 'Opportunity costs' are the opportunities that one misses out on by choosing one option over another. In this case, the opportunity cost can include missing out on the dense, mixed-use development with affordable housing envisioned in the North Burnet/Gateway Neighborhood Plan, the city plan that covers the area. It may also include missing out on privately financed infrastructure improvements that other developers may be required to provide.

Understanding the economic impact of competing proposals is an important part of determining whether PSV's proposal has larger or smaller economic benefits than alternative plans – and whether it is ultimately the best option. City staff provided a high-level discussion of opportunity costs.

Crompton argues that economic impact analyses should include opportunity costs so that policymakers and residents have an understanding of the available alternatives and the cost of choosing one option over another.

Implication: Insufficient or absent information on opportunity costs can lead to an inaccurate perception of net benefits.

B&D Report: B&D Venues did not analyze the opportunity costs; the staff memo provides only limited information and does not allow easy comparison to the information in the B&D Venues analysis.

11. Measuring only benefits while omitting costs.

Rationale: Economic impact analyses should include an estimate of the costs of subsidizing a stadium so that policymakers and residents can clearly weigh the benefits and the costs against each other.

Implication: Omitting cost information while focusing mainly on positive impacts can create an impression that there are limited downsides and ample benefits.

B&D Report: B&D Venues did not analyze the cost to the city over the lifetime of the stadium; the staff memo provides valuable information but is missing certain estimates, such as the cost of Transportation Impact Analysis-identified projects and the ongoing costs of infrastructure maintenance and upkeep.

Under the PSV proposal, the city would be required to cover a number of costs and exempt PSV from a number of taxes and fees that the city normally requires of other developers. Understanding how these costs compare to projected benefits is an important part of determining whether PSV's proposal is a good deal or not.